ABSTRACT

IMAGE PROCESSING APPARATUS

Customer processing apparatus 2, 4 are connected to a service apparatus 6 via the Internet 8. Service apparatus 6 sends instructions to the customer processing apparatus to print or display a calibration pattern. Images of a subject object 210 on the calibration pattern are recorded at different positions and orientations and the image data is returned from the customer processing apparatus 2, 4 to the service apparatus 6. The service apparatus processes the image data based on stored data defining the calibration pattern to calculate the image recording positions and orientations and to generate a 3D computer model of the subject object. The 3D computer model is accessed by a third party apparatus which displays an image of the 3D computer model. To ensure that the user at customer apparatus 2, 4 can control the first image displayed at the third party apparatus, the user is informed how to orientate the subject object 210 relative to the calibration pattern, and processing apparatus 6 generates the 3D computer model relative to the calibration pattern and then defines a viewing camera relative to the calibration pattern to view the part of the subject object 210 facing in the predetermined

THIS PAGE BLANK (USPTO)

direction, the first image displayed at the third party apparatus being generated using the defined viewing camera. Alternatively, processing apparatus 6 generates the 3D computer model relative to the calibration pattern and relative to a default viewing camera having a predetermined position and viewing direction. As a further alternative, processing apparatus 6 selects for display at the third-party apparatus the input image received from the user at customer apparatus 2, 4 recorded with the camera viewing axis closest to the predetermined direction in which the subject object 210 was orientated.

(FIGURE 1)

FR 2738650 - 20970314